



# Fleet Service Responder Capstone Project

Sprint Report: 4/8/2016



## Table of Contents

<b>Report .....</b>	<b>2</b>
<b>Sprint Goals Status .....</b>	<b>2</b>
<b>Summary .....</b>	<b>2</b>
<b>Sprint Planning .....</b>	<b>3</b>
<b>Fleet Service Responder Project Architecture .....</b>	<b>4</b>
<b>Live demo! <a href="http://ec2-54-213-58-85.us-west-2.compute.amazonaws.com/">http://ec2-54-213-58-85.us-west-2.compute.amazonaws.com/</a> .....</b>	<b>4</b>
<b>A Walkthrough of the Application .....</b>	<b>5</b>
<b>Landing Page .....</b>	<b>5</b>
<b>Send Notification to Technician: On Open .....</b>	<b>6</b>
<b>Send Notification to Technician: Notification Sent .....</b>	<b>7</b>
<b>Find A New Printer .....</b>	<b>8</b>
<b>iFixIt .....</b>	<b>9</b>
<b>Screenshot of Event Log .....</b>	<b>10</b>
<b>MPS Support Software Screenshot .....</b>	<b>10</b>
<b>Images of the Application on the Printer .....</b>	<b>11</b>
<b>Technology Stacks .....</b>	<b>12</b>
<b>Printer Application .....</b>	<b>12</b>
<b>MPS Application .....</b>	<b>12</b>

# Report

## Sprint Goals Status

Sprint Deliverable	Status
Wikipage Update	Delivered
Build website/application that will display a button to notify an mps a problem occurred.	Delivered
Functionality: Pseudo send print job to another printer and notify the mps a problem occurred.	Delivered
Note Books	Due Next Sprint

## Summary

During this sprint, we developed basic printer and MPS applications. Both applications are serving from the machine provided by Hp, and for now are sharing a log file to communicate.

Current printer application features include:

- Open the application from a printer
- Send information to pseudo MPS server
- Pseudo 'Find a New Printer'
- Pseudo 'iFixIt'

The printer application is written in Java 8, using the Java Spark Framework. We're using the Jetty server that comes embedded with Spark, and Maven as a build manager. On the front end we are using Bootstrap, to give us compatibility with all OXpD supporting printers. Bootstrap is a front end framework designed with 'mobile first' in mind. This enables our application to snap to most printer screen sizes automatically. Additionally, for faster development we are using the Jade Template engine. With Jade, you can write html based on element indentation, instead of element tags.

The MPS application is written in Python using the Django framework. Because it lives on the same machine, it accesses the same log file the printer writes to. The Bootstrap framework was also used to create this application.

Current MPS application features include:

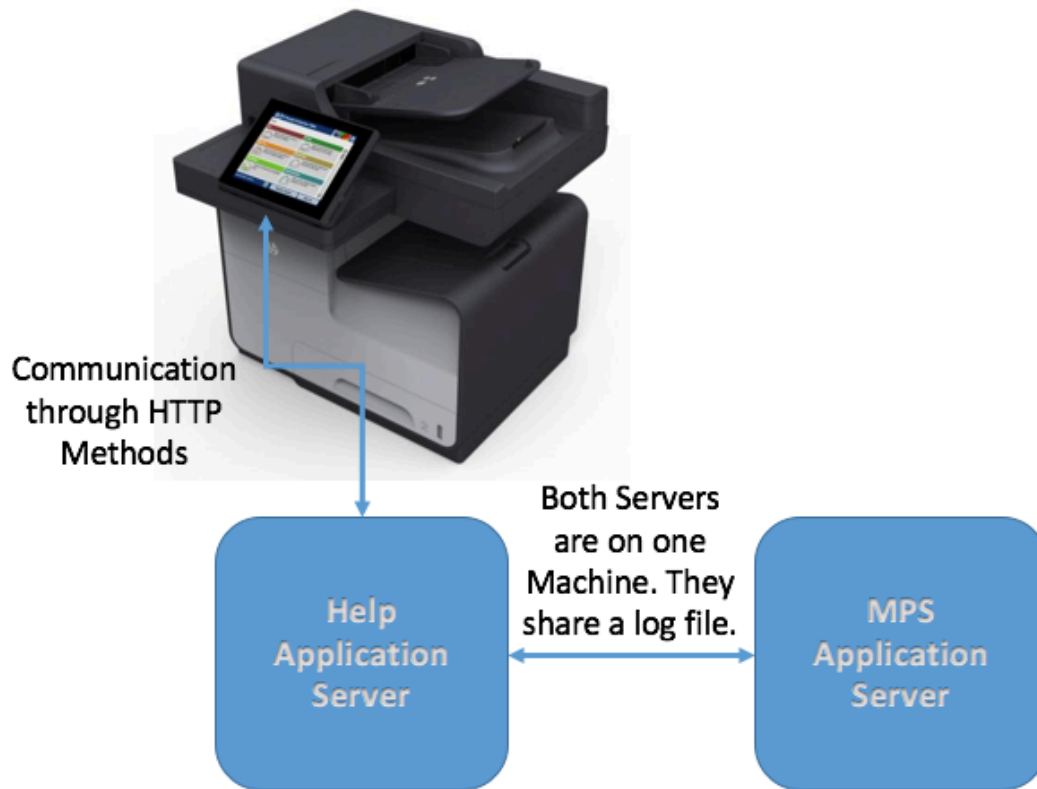
- Read and display notifications from printer
- Placeholders for
  - Chat
  - Mail
  - Admin
  - Statistics Dash
  - Calendar
  - Widgets
  - Search

## Sprint Planning

Next sprint we will include a real-time chat functionality between the printer, and MPS. Furthermore, will refine the 'Find New Printer' and 'iFixIt' functionalities.

Sprint Deliverables	Why	When is it done?
Real Time Chat	Core Requirement	When we send message from printer and reply using MPS software and vice-versa.
Find New Printer Refinement: <ul style="list-style-type: none"><li>• Specify Beacon Location by grid</li><li>• Use Floor Plan of Expo Location</li></ul>	Refinement of Core Requirement	When Beacons can be connected to a point on an image of the Expo Location.
iFixIt: <ul style="list-style-type: none"><li>• Locate and link to Hp's support content</li></ul>	Refinement of Core Requirement	When you can access Hp's support documents through the printer application.
Note Books	Note Books are due during this sprint	When Bruce has our notebook in possession.
MPS Help App Statistics	Core Requirement	When the MPS can view real statistics generated by the printer application.
Test Printer at Expo Location	Catastrophe Prevention	When we have the printer running our application at the Expo location.

# Fleet Service Responder Project Architecture



**Live demo!** <http://ec2-54-213-58-85.us-west-2.compute.amazonaws.com/>



# A Walkthrough of the Application

Landing Page

**Help!**

Contact Technician

Find New Printer

iFixIt

Exit Help

## Send Notification to Technician: On Open

# Send Notification to Technician

Please Briefly Comment on the Problem

**Notify MPS**

By clicking **Notify MPS**, your managed print service provider will be notified, and contact you shortly.

**Shawn: This button sends log data to a file on our server. Currently, that file is shared with the MPS software.**

## For demonstration, data will appear here ...

[Help Home](#)

[Exit Help](#)

Send Notification to Technician: Notification Sent

## Send Notification to Technician

Cody

Helbling

Hp

yaya@gmail.com

My printer is broken.

Notification Sent!

By clicking **Notify MPS**, your managed print service provider will be notified, and contact you shortly.

Shawn: This button sends log data to a file on our server.  
Currently, that file is shared with the MPS software.

"Cody Helbling, 4, 139, 1460095708104"

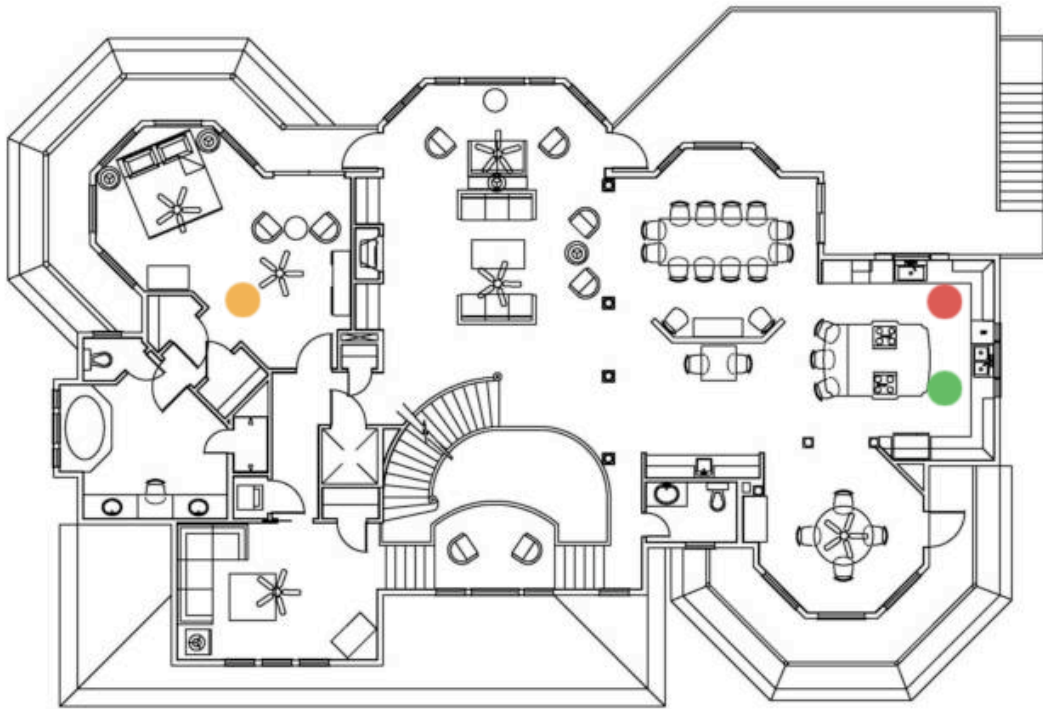
Help Home

Exit Help

Find A New Printer

## A Technician has been Notified

Here are some near-by printers!



Available



In Use



Out of Order



Help Home

Exit Help

iFixIt

iFixIt

## Common Quick Fix Solutions

### Paper Jam - 5 Minutes

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

### Toner Replacement - 10 Minutes

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

### Software Malfunction - Unknown Minutes

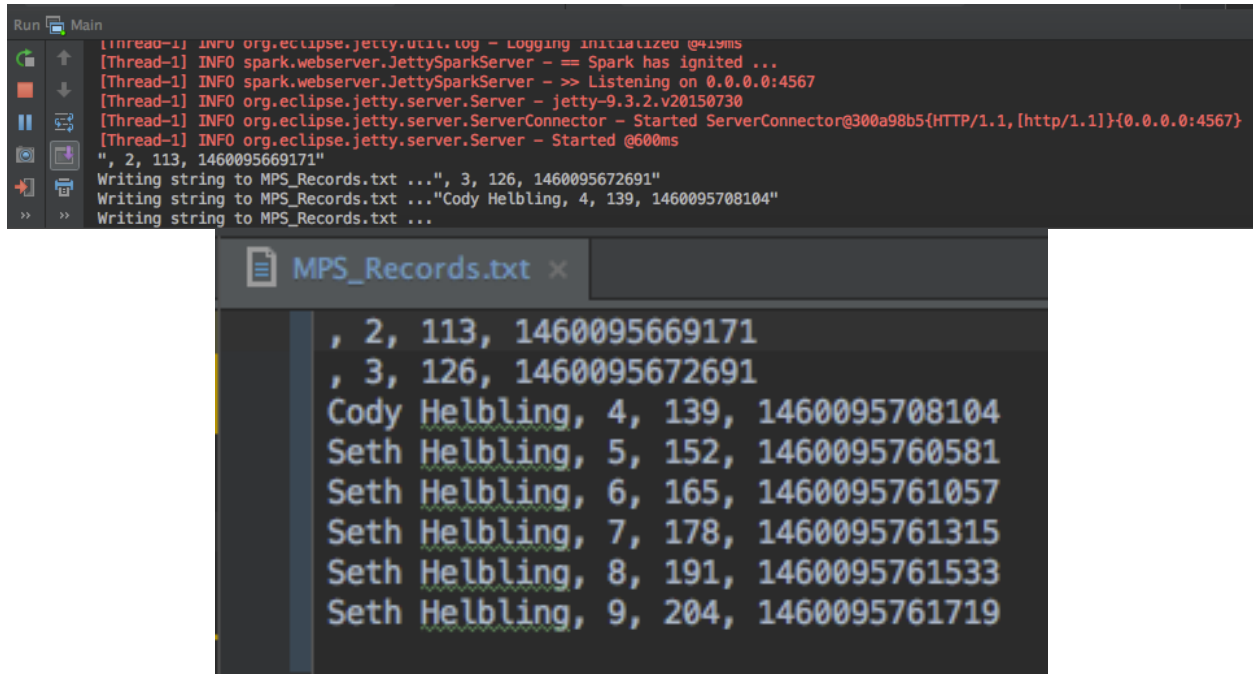
Donec sed odio dui. Cras justo odio, dapibus ac facilisis in, egestas eget quam. Vestibulum id ligula porta felis euismod semper. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus.

[View details »](#)

Help Home

Exit Help

## Screenshot of Event Log



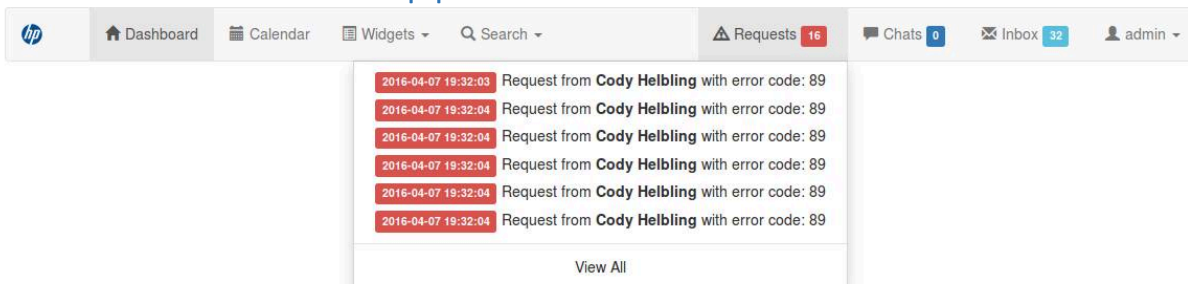
The screenshot shows an IDE's Run console window with the following log output:

```
Run Main
[Thread-1] INFO org.eclipse.jetty.util.log - Logging initialized @419ms
[Thread-1] INFO spark.webserver.JettySparkServer - == Spark has ignited ...
[Thread-1] INFO spark.webserver.JettySparkServer - >> Listening on 0.0.0.0:4567
[Thread-1] INFO org.eclipse.jetty.server.Server - jetty-9.3.2.v20150730
[Thread-1] INFO org.eclipse.jetty.server.ServerConnector - Started ServerConnector@300a98b5{HTTP/1.1,[http/1.1]}{0.0.0.0:4567}
[Thread-1] INFO org.eclipse.jetty.server.Server - Started @600ms
", 2, 113, 1460095669171"
Writing string to MPS_Records.txt ...", 3, 126, 1460095672691"
Writing string to MPS_Records.txt ..."Cody Helbling, 4, 139, 1460095708104"
Writing string to MPS_Records.txt ...
```

Below the console, a file named `MPS_Records.txt` is open, displaying the following content:

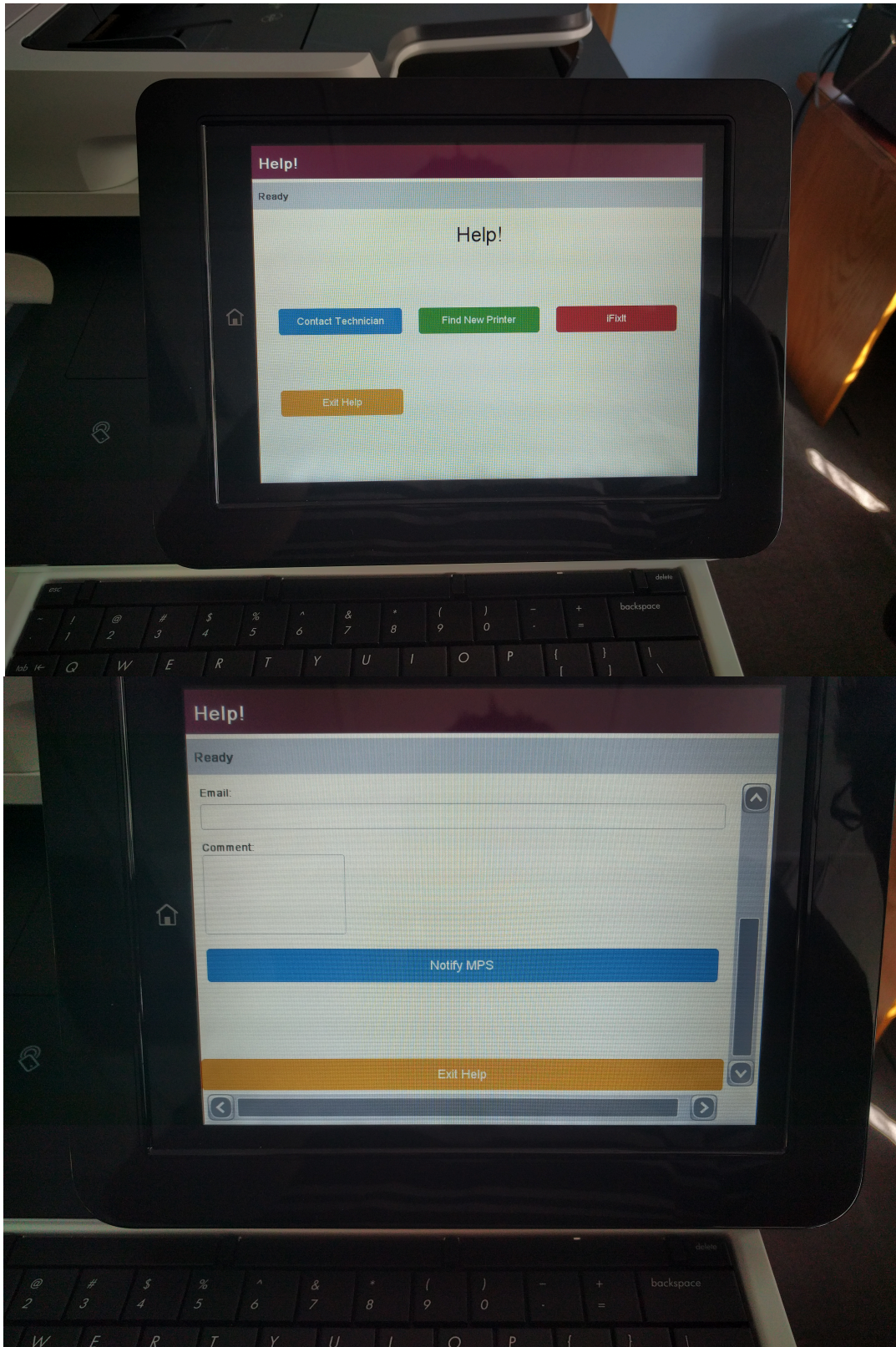
```
, 2, 113, 1460095669171
, 3, 126, 1460095672691
Cody Helbling, 4, 139, 1460095708104
Seth Helbling, 5, 152, 1460095760581
Seth Helbling, 6, 165, 1460095761057
Seth Helbling, 7, 178, 1460095761315
Seth Helbling, 8, 191, 1460095761533
Seth Helbling, 9, 204, 1460095761719
```

## MPS Support Software Screenshot





## Images of the Application on the Printer



# Technology Stacks

## Printer Application

- Java 8
- Java Spark Framework
- Jetty Server
- AWS
- Bootstrap 3
- HTML4/CSS/JavaScript
- Jade Template Language
- AJAX
- IntelliJ

## MPS Application

- Python
- Django Web Framework
- HTML/CSS/JavaScript
- Bootstrap